DOCUMENT RESUME

ED 155 660 CS 004 179

TITLE Reading Achievement: Characteristics Associated with Success and Failure: Abstracts of Doctoral Dissertations Published in "Dissertation Abstracts International," July through September 1977 (Vol. 38 Nos. 1 through 3).

INSTITUTION ERIC Clearinghouse on Reading and Communication Skills, Urbana, Ill.

PUB DATE 78

NOTE 17p.

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.

DESCRIPTORS Annotated Bibliographies; Aurally Handicapped; Black Students; Cognitive Style; Deaf Children; Disadvantaged Youth; *Doctoral Theses; Elementary Education; Emotionally Disturbed Children; High Achievers; Learning Disabilities; Logical Thinking; *Low Achievers; Predictor Variables; Preschool Children; Puerto Ricans; *Reading Achievement; Reading Comprehension; *Reading Research; *Reading Skills; *Retarded Readers; Secondary Education

ABSTRACT

This collection of abstracts is part of a continuing series providing information on recent doctoral dissertations. The 24 titles deal with a variety of topics, including the following: the relationship between home environment and reading achievement in Puerto Rican pupils; the relationship between magical thinking and reading skills in emotionally disturbed children; characteristics of achieving and nonachieving students in a Title I reading program and in a preschool reading program; personalized educational prescriptions employing analysis of educational cognitive styles; differences in cognitive style and visual motor ability in poor, average, and good readers; development of logical thought in adolescents with reading retardation; the relationships between reading achievement and social interaction, geographic isolation, and children's developmental stage; nonintellectual factors in achievement of black disadvantaged male students; metalinguistic awareness and reading strategies in proficient and learning disabled readers; linguistic aspects of word recognition by adolescents; reading disabilities of disadvantaged students; factors affecting reading comprehension scores of deaf children; and predictor variables for first grade reading achievement. (GW)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED155660

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

Reading Achievement: Characteristics Associated with Success and Failure:

Abstracts of Doctoral Dissertations Published in Dissertation Abstracts International, July through September 1977 (Vol. 38 Nos. 1 through 3)

Compiled by the Staff of

ERIC/RCS

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

University Microfilms International

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

CS004179

The dissertation titles contained here are published with permission of the University Microfilms International, publishers of Dissertation Abstracts International (copyright © 1977 by University Microfilms International), and may not be reproduced without their prior permission.

This bibliography has been compiled as part of a continuing series designed to make information on relevant dissertations available to users of the ERIC system. Monthly issues of Dissertation Abstracts International are reviewed in order to compile abstracts of dissertations on related topics, which thus become accessible in searches of the ERIC data base. Ordering information for the dissertations themselves is included at the end of the bibliography.

Abstracts of the following dissertations are included in this collection:

Alvira-Benitez, Sigfredo

SELECTED FACTORS IN HOME ENVIRONMENT AND PUERTO RICAN FOURTH GRADE PUPILS' READING ACHIEVEMENT

Baber, Elizabeth Coe

FIELD DEPENDENCE - INDEPENDENCE, MEMORY, LOGICAL THINKING TASKS, AND EFFICIENCY IN READING COMPREHENSION

Barry, Judith Frances

READING READINESS SKILLS IN JANUARY KINDERGARTEN PUPILS RELATED TO READING SUCCESS IN DECEMBER OF FIRST GRADE

Brown, Dorotha Helen

DEVELOPMENTAL ANALYSIS OF READING ATTITUDE, LOCUS OF CONTROL, READING ACHIEVEMENT AND SCHOLASTIC APTITUDE

Buescher, Thomas Michael

MAGICAL THINKING, CAUSATION AND PREDICTION: PSYCHOLINGUISTIC IMPLICATIONS FOR READING SKILLS IN EMOTIONALLY DISTURBED CHILDREN

Childress, Thomas Winston

SIMILARITIES AND DIFFERENCES BETWEEN ACHIEVING AND NON-ACHIEVING STUDENTS IN A TITLE I READING PROGRAM IN GRADES THREE AND SIX

Ciccoretti, Emil Anthony

DEVELOPING PERSONALIZED EDUCATIONAL PRESCRIPTIONS FOR FOURTH GRADE READING GROUPS EMPLOYING ANALYSIS OF EDUCATIONAL COGNITIVE STYLES

Conoley, Jill Lauren

DEFFERENCES IN COGNITIVE STYLE AND VISUAL MOTOR ABILITY IN GROUPS OF POOR, AVERAGE, AND GOOD READERS

Gu[illegible] Patricia Snyder

A [illegible]Y OF THE CHARACTERISTICS OF THE FOURTH, FIFTH, AND SIXTH GRADE SUBJECTS OF TWO SCHOOL DISTRICTS WHO ARE UNDERACHIEVERS IN READING

Harkabus, Robert Joseph

THE DEVELOPMENT OF LOGICAL THOUGHT IN ADOLESCENTS WITH READING RETARDATION

Hayes, Jane Kellett

SOCIAL INTERACTION AND ITS EFFECTS ON READING ACHIEVEMENT

Hill, Alfred Wayne

EXAMINATION OF NON-INTELLECTUAL FACTORS IN ACHIEVEMENT OF BLACK DISADVANTAGED MALES

Hook, Pamela Evans

A STUDY OF METALINGUISTIC AWARENESS AND READING STRATEGIES IN PROFICIENT AND LEARNING DISABLED READERS

Kehoe, William J.

LINGUISTIC ASPECTS OF WORD RECOGNITION BY ADOLESCENTS

Key, LeRoy Frank

A STUDY OF THE RELATIONSHIP OF READING ACHIEVEMENT TO GEOGRAPHIC ISOLATION AND SELECTED BACKGROUND VARIABLES

Klinger, Paul Anthony

CHARACTERISTICS OF HIGH AND LOW ACHIEVERS IN A PRESCHOOL READING PROGRAM

Nardo, Nita Lawson

A STUDY OF THE READING DISABILITIES OF ECONOMICALLY DISADVANTAGED STUDENTS IN ELEMENTARY GRADES

Ngandu, Kathleen Moore

READING BEHAVIORS OF REMEDIAL HIGH SCHOOL SOPHOMORES

Osgood, Joan Studnicky

THE INFLUENCE OF THE STRUCTURAL MODE OF WRITTEN MATERIAL ON THE COMPREHENSION SCORES OF DEAF AND HEARING CHILDREN AT THE SECOND AND FOURTH GRADE READING LEVEL

Pinzari, Stephen James

AN ANALYSIS OF THE SYNTACTIC DENSITY OF THE ORAL LANGUAGE OF FIRST GRADE CHILDREN: HOW IT AND NINE OTHER VARIABLES INTERRELATE AND PREDICT GLOBAL READING ACHIEVEMENT

Saoi, Arlys L.

THE EFFECTS OF LEVELS OF INTEREST, ACHIEVEMENT AND SELF-CONCEPT ON THE READING COMPREHENSION SCORES OF FOURTH GRADE BOYS AND GIRLS

Sears, Carol Joyce

A STUDY TO DETERMINE RELATIONSHIPS EXISTING BETWEEN SENSORY INTEGRATION SYNDROMES AND PSYCHOLINGUISTIC ABILITIES IN CHILDREN WITH LEARNING DISABILITIES

Serwatka, Thomas Stephen

NONVERBAL PREDICTORS OF READING ACHIEVEMENT IN HEARING IMPAIRED CHILDREN

Spence, Mary Kaneaster

COMPARISON OF PIAGETIAN TASK PERFORMANCE BY PRIMARY CHILDREN AND READING ACHIEVEMENT, CULTURAL BACKGROUND, SOCIO-ECONOMIC STATUS, AND RECEPTIVE LANGUAGE AGE

SELECTED FACTORS IN HOME ENVIRONMENT AND PUERTO RICAN FOURTH GRADE PUPILS' READING ACHIEVEMENT

ALVIRA-BENÍTEZ, Sigfredo, Ed.D.
Temple University, 1977

I. Type: Descriptive

II. Problem: Investigate significant relationships between sex, reading achievement of fourth graders and one or more of these home environment variables--home living environment, economic status, educational background of parents, language used at home, reading activities, and parent-child reading interaction.

III. Research Question: Are there significant relationships between sex, reading achievement of fourth graders and one or more of the home environment variables--home living environment, economic status, educational background of parents, language used at home, reading activities, and parent-child reading interaction?

IV. Delimitations: A. Population: 30 boys and 30 girls - fourth graders - Welsh Elementary School. B. Materials: 1. Iowa Tests of Basic Skills, Forms 5 and 6. 2. Reading Achievement Test: Lippincott Series, Book F. 3. Questionnaire: a. Administered to subjects' parents. b. Purpose: assess information on the home environment factors stated in research question.

V. Statistical Analysis Used: A. Multiple regression analysis technique. B. Significant differences - hypothesized at .05 level.

VI. Findings: A. There was significant relationship between sex, reading achievement and these home environmental variables: 1. Home living environment. 2. Economic status. 3. Educational background of parents. 4. Reading activities of parents and children. 5. Parent-child reading interaction. B. Children achieving in reading according to their grade level.

VII. Conclusions: A. Home living environment: 1. Significant aspects: a. Space usage by family. b. House appearance. c. Size of house. d. Number of family members living together. e. Maintenance of house. B. Economic status: 1. Significant aspects: a. Additional income sources. b. Parents' ownership of homes. C. Educational background of parents (Iowa only): 1. Significant aspects: a. Years mothers attended secondary school in the United States. b. Years fathers attended the elementary school in the United States. c. Years mothers attended elementary school in the United States. d. Level of education attained by father. D. Language used at home: 1. There was no significant relationship. E. Reading activities - parents and children: 1. Reading materials influencing most in their reading achievement: a. magazines. b. plays. F. Parent-child reading interaction: 1. Significant aspects: a. Viewing educational television. b. Mothers' and children's attendance to recreational activities.

VIII. Implications: A. For application: 1. School should establish programs in which teachers and community leaders orient parents on how to: a. make adequate use of house space. b. provide parental and children reading activities. c. select appropriate T.V. programs, specifically, educational. d. maintain a good appearance of the house. e. make adequate provisions for the number of family members living in the same house. 2. School should provide consultation services on the mentioned aspects. 3. Provision of pre and inservice training for educators, not only those specialized in reading, but all who are involved in the teaching learning situation, to make them aware of the home environmental factors influencing a child's reading achievement. B. For further research: 1. Use home environmental factors identified in this study to determine their relationships with reading achievement among junior high or senior high school students in a low socio-economic area. 2. Determine whether or not the same home environmental factors identified here have any relationship with reading achievement among children of other ethnic and language backgrounds. 3. Investigate the relationship of home environmental factors with reading achievement among children of varying socio-economic status. 4. Identify other environmental factors which may have influence upon non-reading achievers. 5. Investigate whether home environmental factors relate to reading achievement from the elementary school through senior high school. 6. Investigate the relationship between parents' reading achievement and child's reading achievement. 7. Replicate the same study with a truly random sample of fourth grade children of Puerto Rican origin.

Order No. 77-13,487, 116 pages.

FIELD DEPENDENCE - INDEPENDENCE, MEMORY, LOGICAL THINKING TASKS, AND EFFICIENCY IN READING COMPREHENSION

BABER, Elizabeth Coe, Ed.D.
Memphis State University, 1976

Utilizing the perception and cognitive developmental theories of Witkin, Piaget and Neimark, this study attempted to determine correlations between measures of field dependence-independence, visual memory for pictures, permutations with numbers, multiplicative classification matrices, verbal transitive inferential logic and reading comprehension. Since sex, race and parental occupation have been shown to correlate significantly with reading comprehension, an ancillary problem was to determine the effects of these demographic variables upon the predictive value of the measures of field dependence-independence, memory and logical thinking when predicting reading comprehension. Basically, two questions were asked: 1. Do selected perceptual and logical thought processes correlate with efficient reading comprehension for first and fourth grade students? 2. Are selected demographic, perceptual, memory and logical thought variables efficient predictors of reading comprehension for first and fourth grade students?

Seventy-one first grade students and ninety fourth grade students, evenly divided by race, sex and professional-nonprofessional parental occupations, enrolled in a public school in Memphis, Tennessee, composed the population for this study. Data was gathered in two individual testing sessions with each of the students. Pearson correlation coefficients were calculated for the demographic variables, the five independent variables and reading comprehension to test the first question. Those that were significant at the $p < .05$ level were accepted. A stepwise multiple regression analysis was used to answer the second question.

The statistical findings allowed several conclusions to be drawn: 1. There appear to be significant correlations between field dependence-independence, ability to generate permutations, multiplicative classification matrices solutions and silent reading comprehension for first grade students. 2. There appear to be significant correlations between field dependence-independence, ability to generate permutations, visual memory for pictures, multiplicative classification matrices solutions, verbal transitive inferential logic and silent reading comprehension for fourth grade students. 3. There appears to be evidence that for fourth grade students the demographic and independent variables did contribute significantly to the prediction of silent reading comprehension. 4. There did not appear to be evidence that for first grade students the demographic and independent variables contributed significantly to the prediction of silent reading comprehension. 5. There was evidence indicating that the demographic variables of sex, race and parental professional-nonprofessional occupation contributed significantly to the prediction of silent reading comprehension for fourth grade students. Addition of the demographic variables significantly increased the amount of variability accounted for in predicting fourth grade students' silent reading comprehension. 6. There was little evidence to indicate that the demographic variables of sex, race and parental professional-nonprofessional occupation contributed significantly to the prediction of silent reading comprehension for first grade students. The addition of the demographic variables to the regression equations of first grade students resulted in displacing several of the independent variables while raising only slightly the amount of variability accounted for in predicting silent reading comprehension. 7. There appears to be support for the hypothesis that the five independent variables have value for the classroom teacher in separating areas of perceptual and cognitive development that correlate significantly with silent reading comprehension, and that students can obtain beneficial instruction on in conjunction with formal reading comprehension lessons. 8. The five independent variables are not difficult to administer and score, and are of value for the classroom teacher, but they do require individual administration in a quiet, nondistracting

setting. Therefore, they may be of greater value in diagnosing some of the underlying difficulties of students who are experiencing difficulty in reading comprehension, than as screening instruments for predicting futute reading comprehension learning disabilities

These conclusions generated a number of implications for further study both of a longitudinal nature and in implications for the classroom teacher and the diagnosis and treatment of students experiencing difficulty in learning to read for comprehension. Order No. 77-3145, 127 pages.

READING READINESS SKILLS IN JANUARY KINDERGARTEN PUPILS RELATED TO READING SUCCESS IN DECEMBER OF FIRST GRADE

BARRY, Judith Frances, Ed.D.
Boston University School of Education, 1977

Major Professor: Dr. Thomas E. Culliton, Jr.

Problem: The purpose of this study was to make an extensive inventory of certain auditory, visual, language and motor perceptual background abilities of January kindergarten pupils and to discover relationships among these perceptual abilities as they relate to success in beginning reading in December of first grade.

The importance of such background factors as chronological age, sex differences, differences in intelligence, learning rate, birth order, and the amount of time spent viewing educational television were also investigated.

The focus of this study was to measure and identify the predictive success variables.

Procedure: To obtain statistical information, a total of seventeen testing measures, six standardized, and eleven informal measures were administered to 563 January kindergarten pupils. Three of the measures were individual tests. The follow-up first grade testing program administered to 409 children consisted of one standardized test, the Durrell Listening – Reading Test, an informal vocabulary inventory and the child's reading group placement by the first grade teacher.

Each of the seventeen measures administered to the 563 kindergarten children is listed in rank order of difficulty from the easiest to the most difficult item. These tables which describe the number of children able to recognize each letter name and each phoneme should be helpful to the early childhood educational practitioner in planning and developing educational materials for kindergarten and first grade.

Findings: The inquiry about the letter knowledge abilities possessed by January kindergarten children yielded the following conclusions: 1. January kindergarten children are well beyond the picture and shape matching visual discrimination tasks and are ready for meaningful practice with letters as evidenced by a mean number of 25 capital and 23 lower-case letters matched. 2. January kindergarten children have excellent visual memory for letters as evidenced by the fact that 94 percent of the population tested was able to match 22 or more capital letters correctly; 88 percent of the population tested was able to match 22 or more lower-case letters correctly. 3. That many children bring to kindergarten an interest in and ability in letter name knowledge is demonstrated by the mean score of 23 capital letters and 21 lower-case letters on the tests of identification of capital and lower-case letters after a flash stimulus. 4. A comparison with two previous studies, both of which were conducted in September of first grade on letter knowledge abilities, found January kindergarten children to be further advanced in the identification of capital and lower-case letters than September first graders of 1957 and 1967. 5. This study found a definite hierarchy of letter knowledge skills to exist which from the easiest to the most difficult were the following: Matching of capital letters. Matching of lower-case letters. Identification of capital letters after a flash stimulus. Identification of lower-case letters after a flash stimulus. Identification of capital letters after hearing the name of the letter. Naming capital letters in isolation. Identification of lower-case letters after hearing the name of the letter. Naming lower-case letters in isolation. Giving sounds of lower-case letters. 6. The high correlation between hearing the letter name sound in the word and the child's reading group placement in first grade demonstrates that letter name sounds are the young child's first phonic learning. Of all of the measures of first grade reading achievement, it was found that the classroom teacher's judgment of the child's actual reading group placement in first grade had the highest correlations with background reading abilities measured in kindergarten. First grade reading group placement was found to be statistically significant at the .01 level of confidence with all kindergarten background reading abilities. Order No. 77-11,352, 253 pages.

DEVELOPMENTAL ANALYSIS OF READING ATTITUDE, LOCUS OF CONTROL, READING ACHIEVEMENT AND SCHOLASTIC APTITUDE

BROWN, Dorotha Helen, Ph.D.
The Ohio State University, 1976

Adviser: Associate Professor Ann W. Engin

The present study was designed to investigate a series of hypotheses concerning the relationship between the various dimensions of reading attitude and locus of control. Other variables were also considered but they were not of critical importance to the study. Thus, the following four research questions were formulated for purposes of operationalizing the more global concerns of the study: (1) What is the relationship between locus of control and the following eight dimensions of reading attitudes: expressed reading difficulty, reading as direct reinforcement, reading as enjoyment, alternative learning modes, reading anxiety, oral vs. silent reading, reading group, and comics? (2) To what extent does adding information about reading attitudes improve the predictability of reading vocabulary and reading comprehension beyond that predicted by scholastic aptitude taken alone? (3) Are the reading anxiety scores of children with a more external locus of control higher than those for children with a more internal locus of control? (4) What developmental changes occur in the basic dimensions of reading attitude from grade four through grade six?

The sample consisted of 431 intermediate grade students from three inner-city elementary schools from a large city system in central Ohio. Operationally speaking, these schools were defined as inner-city on the basis of the fact that at least one-third of the children enrolled therein came from families receiving assistance through the federal Aid for Dependent Children (ADC) programs. The Survey of Reading Attitudes and Intellectual Achievement Responsibility Scale were administered orally to all students in class size groups but copies of the Survey and IAR were also available for the students to read while they were responding to the questions. Current data concerning reading vocabulary and comprehension were obtained from the school files.

Several stages of statistical analysis were necessary to provide tentative answers to the research questions stated above. These analyses included determining product-moment correlations, performing analyses of variance, computing coefficients of multiple correlations, and the use of graphic techniques.

Results of the study centered around the findings related to the four research questions. Correlations between locus of control and the eight dimensions of reading attitude indicated the presence of a few weak relationships, but none of the rs were of sufficient magnitude to suggest a pattern of strong relationships as was hypothesized in the introductory section of the study. That is, the present study does not substantiate a significant relationship between either the plus or minus aspects of internality and any of the eight dimensions of reading attitude.

In determining the extent to which the addition of information about reading attitudes improves the predictability of reading comprehension and vocabulary beyond that predicted by scholastic aptitude, a multiple regression subprogram was employed. Results indicate that the addition of reading attitude scores does not result in significantly greater predictability than that provided by scholastic aptitude alone. For reading comprehension, the second variable selected was the I+ score from the IAR, with the Reading Anxiety variable from the SRA contributing at a significant level. However, the increment resulting from the addition of Reading Anxiety was only slight.

A small but [illegible]ematic relationship was found between Reading Anxiety and both internality plus and internality minus. The variance common to the two variables was small but indicated that a positive relationship existed.

Significant developmental changes were indicated for five of the eight reading attitude dimensions as children progress from grades four through six. The change was not in the form of an increase in scores at each grade level for every dimension. The relationship in some cases proved to be too complex to be explained in the present study.

Order No. 77-10,500, 114 pages.

MAGICAL THINKING, CAUSATION AND PREDICTION: PSYCHOLINGUISTIC IMPLICATIONS FOR READING SKILLS IN EMOTIONALLY DISTURBED CHILDREN

BUESCHER, Thomas Michael, Ph.D.
Wayne State University, 1976

Major Professor: Asa Brown

This exploratory research reports the results of a systematic examination of the relationships existing between the operant level of magical thinking and reading proficiency/comprehending in emotionally disturbed children and their normal and gifted peers, ages 7 through 9. Sixty-eight subjects from four populations (two experimental and two control groups) were interviewed and tested: Experimental Group A, 14 children (ages 7–9) diagnosed as emotionally disturbed, and Experimental Group B, 14 children (ages 11–13) diagnosed as emotionally disturbed, all residing at Hawthorn Center; Control Group C, 15 children (ages 7–9) assessed as gifted and attending Roeper City and Country School; and Control Group D, 25 children (ages 7–9) enrolled in regular classrooms at Neil E. Reid School, L'Anse Creuse School District.

Four assessment procedures were performed with each subject: The Similarities Subtest and the Comprehension Subtest of the Wechsler Intelligence Scale for Children; The Magical Thinking Assessment developed by the researcher; and finally, the Goodman-Burke Reading Miscue Inventory procedure.

The findings of the present exploratory research are significant and indicate a strong correlation in all subjects ($r = .48$, $p = .01$) between the child's developmental cognitive stage of either animism, artificialism or physical determinism (Reading Predictor Scores) and his in-process reading comprehending as evidenced by the semantic and grammatical acceptability of oral reading miscues. It was found that gifted children operated in their lifespace at a more "physicalistic" level than their normal or disturbed peers. Similarly, the normal children were seen as being less magical in the overall interpretation of the world than the disturbed children. These three general modes of orientation in prediction were also correlated with the respective population's reading proficiency/comprehending: gifted children read more proficiently than both the normal and disturbed children; normal children read more proficiently than the disturbed children (at both age levels).

The central finding of the present study is that magical thinking and in-process reading comprehending are related in such a way that (a) more efficient (less magical) predictors are more proficient readers; and (b) less efficient (more magical) predictors are less proficient readers. This finding was significantly indicated across all study populations. One further finding was that disturbed children show a tendency to remain more magical in their interpretation of the world for a longer period of time than their normal or gifted peers.

The implications of these findings bear significant impact for the theoretical and practical applications of curriculum design for the education of all children (whether normal, gifted, or disturbed) particularly in the areas of symbolization and language information processing as pre-requisite skills for reading. Further research is indicated for the relationship of conceptualization and prediction in early readers.

Order No. 77-9375, 218 pages.

SIMILARITIES AND DIFFERENCES BETWEEN ACHIEVING AND NON-ACHIEVING STUDENTS IN A TITLE I READING PROGRAM IN GRADES THREE AND SIX

CHILDRESS, Thomas Winston, Ph.D.
The Florida State University, 1976

Major Professor: Edwin K. Smith

The purpose of this study was to determine whether there are significant relationships between twenty-two selected factors and the reading grade equivalents of third and sixth grade disadvantaged students who are (1) achievers and (2) non-achievers, and (3) to determine whether the two achievement groups are significantly different with respect to the selected factors.

For this study, an achiever was defined as a student whose ratio of learning in reading for the treatment period was greater than his ratio of learning before treatment. Areas investigated for relationships with student grade equivalents were: personal, family constellation, parental, housing, educational, and self-concept.

The population was composed of 207 third and 154 sixth grade students enrolled in a Title I reading program during the 1974–75 school year in an urban area in Georgia. Data for the study were collected using the Slosson Oral Reading Test, the Piers-Harris Children's Self-Concept Scale, and a personal data sheet developed by the researcher.

Utilizing the Pearson product-moment correlation coefficient, it was determined that few significant correlations existed between the selected factors and the grade equivalents of achieving and non-achieving students at the third and sixth grade levels. When tested for differences, the two achievement groups were not found to be significantly different on any factor at the third grade level. For the sixth grade, the two achievement groups were found to be significantly different on one educational factor: the non-achievers had a significantly larger number of days absent from school.

The main conclusions of the study dealing with third and sixth grade disadvantaged students were: (1) the factors investigated generally have little influence on reading achievement and (2) the achieving and non-achieving students are essentially the same population. Order No. 77-8576, 230 pages.

DEVELOPING PERSONALIZED EDUCATIONAL PRESCRIPTIONS FOR FOURTH GRADE READING GROUPS EMPLOYING ANALYSIS OF EDUCATIONAL COGNITIVE STYLES

CICCORETTI, Emil Anthony, Ed.D.
Wayne State University, 1976

Major Professor: Morrel Clute

The purpose of the study was to employ "collective educational cognitive styles" (the ways by which a particular sample of students seeks meaning or knowing) of groups identified by performance on the Reading Test of the Michigan Educational Assessment Program for fourth grade students to provide "personalized education prescriptions" (programs that match materials to a student's style for a particular educational task) in developmental reading. The population of the study consisted of fifteen successful students and thirteen unsuccessful students, all in the fourth grade of the John N. Kantner Elementary School of the East Detroit Public Schools, East Detroit, Michigan. Successful students were those who had scored mastery on 100% of the objectives tested. Unsuccessful students were determined to be those who had failed to score mastery on 84.2% of the objectives.

The problems were: to determine what collective cognitive style is attributable to successful readers; to determine what collective cognitive style is attributable to unsuccessful readers; to determine what elements of cognitive style are common to both groups; to determine what elements of cognitive style are not common to the selected groups; and to suggest instructional prescriptions for students from the unsuccessful group to be employed in their respective programs of study.

To accomplish this, each individual's educational cognitive style was mapped to determine the cognitive elements that describe how he/she seeks meaning. Data was analyzed for the successful group and unsuccessful groups separately. The data was then compared for elements common to both groups and elements unique to each group.

Elements which were common to both groups were: T(AL) – Theoretical Auditory Linguistics, T'(VQ)* – Theoretical Visual Quantitative, Q(CET) – Qualitative Code Ethic, Q(CES) – Qualitative – Code Esthetics, Q(CKH) – Qualitative Code Kinesthetics, Q(CP) – Qualitative Code Proxemics, Q'(CH)* – Qualitative Code Histrionics, Q'(CK) – Qualitative Code Kinesics, F – Family, I' – Individuality, M – Magnitude, R'* – Relationship, and D'* – Differences.

Elements unique to the successful group were T'(VL)* – Theoretical Visual Linguistics, T'(AQ)* – Theoretical Auditory Quantitative, Q(CEM) – Qualitative Code Empathetic, Q(CS) – Qualitative Code Synnoetics, A – Associates, and L – Appraisal. This would indicate that the successful group had a greater tendency to utilize visual linguistics (words), were more auditorily oriented to numbers, had greater empathy for people and events, had a greater knowledge of themselves, were more comfortable and operated more effectively in a peer setting, and relied on all three modalities of inference. The uniqueness of the unsuccessful group was a greater orientation in Q(CT) – Qualitative Code Transactional. This would indicate a tendency to influence others to move toward goals in keeping with their own goals, an orientation important in salesmanship.

Suggestions were made for instructional prescriptions for students from the unsuccessful group. Augmentation of weaknesses in cognitive style were recommended utilizing the preferred method of searching for meaning.

Implications of the study were that (1) individualization of instruction can be implemented more effectively through knowledge of a student's educational cognitive style, (2) appraisal of a student's strengths and weaknesses should not be limited to achievement. It should include cognitive style mapping.

Order No. 77-9379, 98 pages.

DIFFERENCES IN COGNITIVE STYLE AND VISUAL MOTOR ABILITY IN GROUPS OF POOR, AVERAGE, AND GOOD READERS

CONOLEY, Jill Lauren, Ph.D.
The University of Texas at Austin, 1976

Supervisor: Stephen C. Larsen

The purpose of this study was to examine the various theories that relate cognitive style and visual motor ability to reading achievement. In order to do this, differences in conceptual tempo, field dependence-independence, visual analytic conceptual style, and visual motor ability in groups of poor, average, and good readers were examined. An analysis of covariance was used to control for the effects of intelligence.

Procedures

The subjects for the study were 89 fourth-grade children whose intelligence, vision, and hearing were in the normal range. Reading achievement scores measuring reading vocabulary, reading comprehension, and a composite reading score were obtained for the subjects in order to divide them into groups of low, average, and high readers. The following tests were administered to each subject: the Matching Familiar Figures Test to measure conceptual tempo; the Children's Embedded Figures Test to measure field dependence-independence; the Pick Two Pictures test to measure the visual analytic conceptual style; the Developmental Test of Visual Motor Integration to measure visual motor ability; and the Slosson Intelligence Test for Adults and Children to measure intelligence.

The statistical procedure employed to test the hypotheses was a one-way analysis of covariance. This procedure was chosen for its ability to control for the effects of intelligence. In order to identify which of the reading groups differed in cognitive style and visual motor ability from the others, tests of least significant difference were utilized.

Results

The major findings of the study include the following: 1. No significant differences were found in the conceptual tempo of poor, average, or good readers. 2. Differences were found in the field dependence-independence of the three reading groups. Good and average readers were found to be more field independent than poor readers. 3. Differences were found in the visual analytic conceptual style of the three reading groups. Good readers were found to be more visually analytic than average or poor readers. 4. Differences were found in the visual motor ability of the three reading groups. Good and average readers have greater visual motor ability than poor readers.

Order No. 77-11,493, 105 pages.

A STUDY OF THE CHARACTERISTICS OF THE FOURTH, FIFTH, AND SIXTH GRADE SUBJECTS OF TWO SCHOOL DISTRICTS WHO ARE UNDERACHIEVERS IN READING

GUTH, Patricia Snyder, Ed.D.
University of Pennsylvania, 1976

Supervisor: Morton Botel

The purpose of this study was to evaluate the effectiveness of the reading instructional program of a school district which implemented certain practices to minimize underachievement in reading. To accomplish this, the extent of underachievement in reading of the subjects of a model school district was compared to the extent of underachievement in reading of the subjects of a comparison school district. Also investigated was the relationship of reading achievement and underachievement to selected characteristics which are sometimes associated with underachievement in reading.

The school districts selected for the study were similar in geographic location, socioeconomic conditions, ethnic composition of the population, and the potential for the support of public education. The two school districts differed with respect to the following aspects of their educational programs: (1) defined supervisory practices, (2) use of reading instructional levels for the assignment of pupils into classes, (3) integration of the reading and language arts instructional program, (4) procedures for the assessment of pupils' reading progress, (5) special reading instructional program for pupils with reading difficulties, (6) integration of library books into the reading instructional program, (7) special service personnel to aid with pupils with learning problems, and (8) an in-service educational program aimed at the improvement of reading instruction.

The subjects of the study were those pupils who were enrolled in each school district since kindergarten at the beginning of first grade.

The Peabody Picture Vocabulary Test was administered to each subject to assess his verbal capacity, and his reading achievement was determined through the Word Meaning and Paragraph Meaning Subtests of the Stanford Achievement Test. Selected as the characteristics of the underachievers and the random sample of achievers were: (1) Sex Differences, (2) Intelligence, (3) Reading Achievement, (4) Reading Instructional Levels, (5) Spelling Achievement, (6) Composition Skills, (7) Quality of Handwriting, (8) Handedness, (9) Entrance Age, (10) Kindergarten Attendance, (11) Readiness for Reading Instruction, and (12) Non-Promotion. These characteristics were measured through normative and criterion referenced tests or were secured from the scholastic records. The data was statistically analyzed using the critical ratio, t test, and chi square.

A comparison of the subjects from the two school districts indicated no significant differences between the proportion of males in each grade, chronological age of the subjects, and the proportions of subjects who scored in the first and second stanines of the reading achievement test. For grades four and six, the intelligence of the subjects from School District A was significantly greater than that of the subjects from School District B. For grade five, the reading achievement of the subjects from School District B was significantly greater than that of the subjects from School District A. The proportion of subjects from School District A whose reading instructional levels was significantly greater than the proportion from School District B.

Davis's method of estimating the true underachievement was used to identify those subjects whose underachievement in both Word Meaning and Paragraph Meaning was significant at the five and ten percent levels of confidence.

The hypothesis that there was no significant difference between the incidence of underachievement in reading of the subjects of grades four, five, and six of the two school districts was rejected for the underachievers selected at both the five and ten percent levels of confidence. The following hypotheses were accepted concerning the underachievers identified at the ten percent level of confidence: 1. There was no significant difference between the selected characteristics of the underachievers in reading from the two school districts. 2. There was no significant difference between the selected characteristics of the achievers and underachievers in all grades of each school district with one exception. In School District A, the proportion of underachievers whose reading instructional levels were below grade placement was significantly greater than the proportion of achievers.

The following conclusions seem warranted from the findings of the study: 1. It is possible to design a reading instructional program to minimize underachievement in reading. 2. No significant differences were found between the selected characteristics of the underachievers in the model school district and the comparison school district. 3. Significant differences were not found in the selected characteristics of the achievers and underachievers in reading in each grade of both school districts.

Order No. 77-467, 424 pages.

THE DEVELOPMENT OF LOGICAL THOUGHT IN ADOLESCENTS WITH READING RETARDATION

HARKABUS, Robert Joseph, Ed.D.
Rutgers University The State University of New Jersey (New Brunswick), 1976

Chairperson: George J. Pallrand

The development of logical thought, according to the theoretical system of Jean Piaget, was studied in sixty adolescents. Thirty of the subjects were retarded in reading achievement two or more years. Six tasks derived from the research of Piaget and his colleagues were used in individual testing.

Mean scores on both concrete and formal tasks increased with grade level. All sixty subjects conserved liquid volume but conservation of occupied volume was achieved at later age. The traditional criterion of seventy-five per cent success of the total group was met by only the eleventh and twelfth grade group for conservation of occupied volume. Addition and multiplication of classes, the foundation of combinatorial operations, were achieved by all subjects using the seventy-five per cent criterion.

Scores on formal tasks reinforce the assumption that formal operations are the apex of logical thought. None of the groups achieved the upper formal level on any formal task using the seventy-five per cent criterion, but eleventh and twelfth grade subjects utilized combinatorial operations to meet the criterion for the generalized grouping task on the lower formal level. Combinatorial operations were not applied to all problems with equal success; the chemicals task was more difficult and the conservation of motion on a horizontal plane task most difficult. The INRC group structure was not utilized successfully by any grade group.

No statistically significant difference in the performance of subjects retarded in reading achievement and not retarded in reading achievement was found. A significant difference among grade levels for the generalized grouping and chemicals task was found and contingency coefficients indicated a moderately high degree of association between grade level and performance. No interaction between grade and reading achievement was found.

Significant correlations were found among the tasks and additional measures from cumulative records. The conservation of liquid volume task, though a useful entry level task, did not discriminate among the subjects. The conservation of motion on a horizontal plane task was too difficult and also did not discriminate sufficiently.

The main conclusion was that there was no significant difference on the discriminating measures between adolescents retarded in reading achievement and not retarded in reading achievement in this sample. It is possible that the competence demonstrated by this sample was due to the lower frequency of cultural, social, educational and economic deprivation experienced in an affluent suburban environment. Competence, the subjects knowledge of his own logic, and performance, his observed logical activities, are different entities. It appears that reading may not be a true measure of a student's understanding, since performance may not measure competence if factors on the performance side distort or inhibit the application of the rules of competence.

Order No. 77-13,270, 102 pages.

SOCIAL INTERACTION AND ITS EFFECTS ON READING ACHIEVEMENT

HAYES, Jane Kellett, Ph.D.
University of Georgia, 1976

Supervisor: Dr. Byron Callaway

The purpose of the study was to examine the social interaction that takes place within the classroom and its effect on students' reading achievement. The purpose was also to study social interaction and its relationship to reading achievement scores with the following factors being controlled: 1. Chronological age of students 2. Sex 3. Socioeconomic level of family 4. Intelligence.

To achieve the purpose of the investigation five null hypotheses were tested. The reading achievement score refers to the total reading score. From this raw score, grade level equivalents were used. The hypotheses that were tested are as follows: 1. There were no statistically significant differences in reading achievement scores among the three groups of pupils rated on social interaction. 2. There were no statistically significant differences in reading achievement scores among the three groups of students divided in accordance with degree of social interaction using chronological age of the student as a covariant. 3. There were no statistically significant differences in reading achievement scores among three groups of students divided in accordance with degree of social interaction using sex as a covariant. 4. There were no statistically significant differences in reading achievement scores among three groups of students divided in accordance with degree of social interaction using socioeconomic level of the family as a covariant. 5. There were no statistically significant differences in reading achievement scores among three groups of students divided in accordance with degree of social interaction using intelligence as a covariant.

The second grade students from Bill Arp Elementary School in Douglas County, Georgia, were selected as subjects for this study. This consisted of 169 students in the final sample and eight teachers. The teachers of the students employed the Children's Behavior Checklist in order to place each subject into one of the three categories divided in degree of social interaction: (1) high socially interactive, (2) average socially interactive, or (3) low socially interactive.

To measure reading achievement, the researcher used the SRA Achievement Series, Primary I, Form E Reading section. The raw score of this test was converted to a grade level equivalent score.

The California Short Form Test of Mental Maturity, 1963 Revision, Level 1, was administered in order to obtain an I.Q. score for each subject.

The Two Factor Index of Social Position was selected to determine the socioeconomic level of each subject's family. Information necessary for classifying students according to this instrument was obtained from school records. Date of birth and sex of each student was also obtained from school records.

Several techniques were used to analyze the data. An analysis of variance was used to test hypothesis one. Analysis of covariance was used to test hypotheses two through five. The Duncan Multiple Range Test was also used to test hypotheses two through five. The .05 level of significance was selected as the alpha level to indicate significant differences in testing the hypotheses.

The statistical analyses produced significant results at the .05 level for all five of the tested hypotheses. Therefore, all of the hypotheses were rejected.

The results of this study showed that there is a significant relationship between reading achievement scores and specific levels of social interaction.

Statistically significant differences were found to be present in the reading achievement scores in each of the three social interaction groups when the factors of chronological age and sex were controlled.

There were no statistically significant differences in the reading achievement scores of social interaction groups one and two when the variables of socioeconomic level of the family and intelligence were controlled. However, in both instances, social interaction group three showed significant differences.

Order No. 76-29,528, 86 pages.

EXAMINATION OF NON-INTELLECTUAL FACTORS IN ACHIEVEMENT OF BLACK DISADVANTAGED MALES

HILL, Alfred Wayne, Ph.D.
Kent State University, 1976

Director: John Guidubaldi

Although the concept "disadvantaged child" was conceived as a means of identifying the potentially debilitating effects of environmental deprivation on the psychological and educational development of children, it has too often taken on a global connotation. That is, many people have tended to envision a homogeneous group encompassing all lower-class and often minority youngsters who are caught up in the web of failure. On the contrary, with the exception of economic categories, there are some variations in how this group is defined. In addition, little is known about the psychological impact of "being poor" on different children. Thus, by seeing the disadvantaged as a homogeneous group, their individuality and uniqueness is ignored.

Although academic attainment occurs quite frequently with disadvantaged youngsters, we have no objective data to explain why some disadvantaged succeed and others fail. Before schools can devise successful programs for dealing with these youngsters, more research needs to be done in order to ascertain which factors, do indeed, enhance or inhibit their academic success.

One of the main aspects of this study was to compare selected home, identity, and peer variables of fourth, fifth, and sixth grade disadvantaged black males with their reading achievement scores to determine which have a significant relationship to the disadvantaged child's school success.

Another phase of this study was to measure the amount of congruence in the attitudes of those "significant others" in the child's life, viz., his teachers, parents, and his peers as they respond to questions about non-academic factors such as black pride, racial preference, achievement orientation, self-concept, and sex-role identification.

The subjects for this study consisted of a sample of 50 fourth, fifth, and sixth grade boys from Cleveland's 77 elementary Title I (ESEA) Schools. With the exception of five students all subjects were in schools ranked within the lowest one-third socioeconomic level of these 77 schools. In addition to obtaining information from the 50 subjects in this study, information was obtained from the boys' teachers and parents and from a selected peer group.

In order to measure whether or not the selected variables were related to school success and whether congruence existed among subjects and their "significant others" the following instruments were used. 1. Devereux Elementary School Behavior Rating Scale 2. Self-Concept Semantic Differential Scale 3. Questions on black pride 4. Questionnaire on racial preference 5. Sex-role identification Q-sort 6. Rating scale on achievement orientation.

The data of this investigation suggest that educational expectations for the disadvantaged should not be based on knowledge of demographic information about the family. If this information is allowed to color teacher expectations, they will surely miscalculate and miseducate some of the very pupils who most need their help.

Information from this study also suggests that the child's behavior pattern and attitude toward achievement orientation can indicate how children will do in school. The information also suggests that achieving students conform to demands of the school and expectations of teachers. Closely allied to this position is the finding that achievers tend to adopt teachers' and mothers' attitudes toward achievement. If these assumptions are true, schools should start from the very beginning to provide activities designed to stress proper behavior and constructive attitudes toward achievement.

Other data from this investigation suggest that not only do mothers' expectations tend to be higher for achievers, but achieving children also seem to have a clearer understanding of what their mothers expect of them.

In summary, this investigation concludes that disadvantaged youngsters will achieve better in school if: 1. their mothers have a positive attitude toward achievement and it is shared by their children. 2. their mothers have high expectations for them and these expectations are communicated to and shared by their children. 3. their behaviors are in harmony with the demands of their teachers and the school.

Order No. 77-7824, 158 pages.

A STUDY OF METALINGUISTIC AWARENESS AND READING STRATEGIES IN PROFICIENT AND LEARNING DISABLED READERS

HOOK, Pamela Evans, Ph.D.
Northwestern University, 1976

The purpose of the study was to explore the relationship between oral reading achievement, conscious awareness of oral language (metalinguistic awareness) and word attack strategies in 14 learning disabled readers and 12 proficient readers. The learning disabled readers were at least one year below grade level and the proficient readers were at or above grade level on tests of spelling and oral reading of single words and words in context. All of the children were nine and ten year old boys, had IQ's ranging from 95 to 125 and came from middle to upper middle class homes where standard English was spoken.

Experimental tasks were given to measure the development of metalinguistic awareness of intonation, phonology and grammar. Specific reading error analyses were used to determine the application of intonation, phonics and grammatical relationships as word attack strategies in oral reading.

Results of the study confirmed the hypothesis that learning disabled readers have more difficulty developing metalinguistic awareness than proficient readers. The differences were significant in all three categories: intonation, phonology and grammar. There appeared to be a progression in the development of metalinguistic awareness from recognition to application and it was apparent that more metalinguistic awareness is necessary to process information containing nonsense words than real words. The learning disabled readers also appeared to have a weakened syntactic base causing specific difficulty with forming irregular past tenses, plurals and pronouns in oral language.

Differences were found between the groups on the use of phonics and grammatical relationships confirming the hypothesis that learning disabled children have more difficulty than proficient readers systematically applying word attack strategies in their oral reading. The most significant discriminator between the groups was a subtest requiring metalinguistic awareness of phonology which measured the child's ability to manipulate sounds in real words. The second best discriminator was the ability to apply phonic word attack skills. The predictive power of these two significant variables combined with the other tasks included in the analysis was quite strong (100 percent of the members of both groups were accurately discriminated).

The most significant predictor or oral reading of both single words and paragraphs was the ability to apply phonics. It appears that proficient readers are able to use all three cuing systems (grapho-phonemic, syntactic and semantic) efficiently but the use of grapho-phonemic is the best predictor of oral reading achievement in nine and ten year olds. The second best predictor of reading of single words was the ability to manipulate sounds in words, while for reading of words in context it was the ability to apply correct intonation to sentences containing real words. These types of metalinguistic awareness also correlated highly with the ability to apply phonics.

The hypothesis suggesting a relationship between performance on the metalinguistic awareness tasks and the use of strategies for word attack in oral reading was also confirmed. The possibility of a generalized difficulty in the abstraction and application of rules underlying both the difficulties in oral language and those in reading was discussed.

Implications of the study for future research, diagnosis and remediation were presented. Suggestions were made for restructuring the test battery and for remediation based on the diagnostic results. It was emphasized that work on phonics as well as training in the use of language based cues is essential.

Order No. 77-10,037, 187 pages.

LINGUISTIC ASPECTS OF WORD RECOGNITION BY ADOLESCENTS

KEHOE, William J., Ph.D.
The University of Rochester, 1976

One of the critical areas in the study of reading difficulties of school children involves the question of whether serious comprehension problems are related to problems at the word level, or a higher level of analysis. On one side of the question are researchers like Gough, Shankweiler, and Liberman, who say that poor reading of connected text, with low comprehension, is a consequence of reading words poorly. Other equally competent scholars, such as Smith, Kolers, and Goodman, suggest that many students, particularly at higher grade levels, have few serious problems with individual word recognition, but fail to comprehend what they read because of the structural complexity of the sentences, or larger constructs, which they encounter in reading.

The study described in this paper was designed mainly to test this question. The word recognition behavior of 50 high school students two or more grade levels below their age mates in tests of reading comprehension is contrasted with that of 25 controls from the same schools who are 'reading at grade level'. The experiment included a section in which pictures, flashed, like the words, at 1/100 of a second, were to be identified in a short sentence. This latter subtest was added to explore the relationship of word perceptual difficulties to broader visual perceptual problems identified by many researchers as a major cause of poor reading.

The results indicate that virtually all of the adolescents with low reading comprehension scores also had difficulty reading individual words presented at short flash durations; none of the controls encountered similar difficulty. Moreover, there were no significant differences in the recognition of pictures between the two groups. In fact, the five students identified by their schools as having "visual perceptual problems" perceived pictures significantly better than either the controls or the remainder of the test group.

Regression equations set up to 'predict' the difficulty of the test items according to the loading of factors such as length, frequency, concreteness, and pleasantness, showed these factors to be good predictors for the test subjects' errors only. The errors of the controls did not vary significantly along these parameters. Later analysis of the data showed that additional factors such as word stress pattern, grammatical category, and morphological and derivational complexity clearly affected the recognition success of the test subjects, but not the controls.

Item analysis of the 892 errors of the test subjects in the word recognition part of the test is contrasted with a similar analysis of the 48 errors of the controls. A subset of the 21 error classes identified is shown to be a qualitative, as well as quantitative, difference between the two groups, since these errors do not appear to occur among the control subjects. It is suggested that a test of this type be explored as a potentially useful screening instrument for identifying students in need of very specialized, one to one, remedial assistance.

The relationship of this study to others, particularly to those involving broader language problems, is discussed. Implications for further research, related areas of needed study, and probable impediments to this work are also suggested in the final chapter. Order No. 76-24,008, 130 pages.

A STUDY OF THE RELATIONSHIP OF READING ACHIEVEMENT TO GEOGRAPHIC ISOLATION AND SELECTED BACKGROUND VARIABLES

KEY, LeRoy Frank, Ph.D.
University of Oregon, 1976

Adviser: Mildred C. Robeck

The purpose of this study was to determine the extent to which schooling in a geographically isolated area affected the reading achievement of white, middle class students. Two concomitant aims of the study were: (1) to determine the extent to which students enrolled in an isolated island school district for a considerable length of time were affected on reading achievement measures as compared to students enrolled in the school district for a shorter period of time, and (2) to determine the extent to which selected student-perceived environmental factors appeared to relate to the reading achievement scores of those students affected by geographic isolation for limited versus extended time periods.

The two samples selected for this study were composed of all students enrolled in grades 6 through 12 in the island school district. Students who either dropped out or registered in school during the course of the study – Fall of 1975 through Spring of 1976, were not involved. The samples were labeled short-term and long-term students; information taken from pupil personal files established whether a student would be labeled short-term (enrolled in the island schools less than 7 years) or long-term (enrolled in the island school 7 years or more).

Certain personal data which was subsequently used to establish the sex and grade level of students were collected from both long and short-term groups. Both groups were administered The Comprehensive Tests of Basic Skills during the Spring of 1976. The data collected were broken into three reading achievement components: (a) vocabulary, (b) comprehension, and (c) total scores.

A student-developed questionnaire dealing with student perceptions of the environmental factors of (1) self-image, (2) communication in the home, (3) parental support, (4) attitude toward parent, (5) attitude toward the school, (6) attitude toward the teacher, and (7) attitude toward family life was also administered to both groups.

The major hypotheses, concerning the effect of geographic isolation on reading achievement, were developed and subsequently tested statistically using the "t"-test for the difference between means. Fourteen research questions were also developed in order to generate data concerning the seven factors identified and perceived by students. The research questions were tested statistically on a "Chi-square" test of independence.

Major Findings

With the alpha level established at .05, the following findings were revealed: 1. The student group enrolled in a geographically isolated school less than 7 years scored significantly higher on the reading sub-sections of the CTBS than the student group enrolled for 7 years or more. 2. The male short-term student group scored significantly higher on the reading sub-sections of the CTBS than the long-term male student group. This tendency appeared for female groups, although the results were below the limits set for significance in this study. 3. The frequency of positive responses was found to be significantly higher on the student-perceived environmental factors of: self-image, attitude toward school, parental support, and communications in the home, in short-term students compared with long-term students. These findings correspond with the significantly higher reading scores of short-term students on the CTBS. 4. The frequency of positive responses was found to be significantly higher for short-term males on: self-image, attitude toward school and communication in the home, and also for short-term females on: self-image and parental support as compared with long-term male and female groups respectively. These findings correspond with the higher mean reading scores of short-term male and female groups on the CTBS.

Related research questions concerning the frequency of positive attitudes toward parents, teachers, and family life did not produce significant results, although the trends were consistent, without exception, with the major findings.

Finally, it appears that the over-all hypotheses concerning the significant effect of environmental factors on student achievement levels is confirmed in this study.

Order No. 77-13,197, 170 pages.

CHARACTERISTICS OF HIGH AND LOW ACHIEVERS IN A PRESCHOOL READING PROGRAM

KLINGER, Paul Anthony, Ed.D.
University of California, Los Angeles, 1976

Chairperson: Professor Barbara K. Keogh

This study was conducted to determine the effectiveness of a reading program for preschool children, and to identify personal and environmental characteristics associated with their performance in the program. Thirty-six preschool children, nineteen boys and seventeen girls, age two and a half to five

and a half participated in a beginning reading skills program utilizing a pre-determined sequence of lessons and a task-analysic approach. Sessions were ten minutes each, attended three times weekly for six to seven weeks with one student to one teacher at all times. Prior to beginning instruction, all children were administered the Peabody Picture Vocabulary Test, the Auditory Sequential Memory subtest of the Illinois Test of Psycholinguistic Abilities, and an experimenter designed test of visual discrimination. Additionally sociological data and family reading practices were obtained, as well as the number of reading program elements identified correctly by each child prior to instruction. It was hypothesized specifically that pre-school children of normal ability could be taught to read given a highly structured sequential program, and that their reading acquisition rate would be related to experimental factors and independent of chronological age. One-third of the children completed the program sequence. Transfer ability of those subjects who completed the program was significantly superior to those not completing it. Differences in outcomes by teacher group were not significant. Prior knowledge of program content was the single most powerful contributor to performance in the reading program. Chronological age was a significant influence on reading acquisition rate when prior knowledge was held constant. Discriminant analysis yielded six factors which, when taken together, identified those children falling in the top and bottom reading achievement group. The factors were IQ, Auditory Sequential Memory, age, visual discrimination (pre-test), prior knowledge of program letters, and time spent weekly in reading activities with parents. Possible reasons for the difficulty many children exhibited in mastering the program were explored, along with implications of the results for pre-school and early reading in general.

Order No. 77-9347, 84 pages.

A STUDY OF THE READING DISABILITIES OF ECONOMICALLY DISADVANTAGED STUDENTS IN ELEMENTARY GRADES

NARDO, Nita Lawson, Ed.D.
The University of Tennessee, 1976

Major Professor: Dr. Charles Achilles

This investigation was designed as an ex post facto field study of 153 subjects from economically disadvantaged communities in an urban school district who had been unable to progress at a measurable level in a Title I remedial reading program which had been successful with large numbers of elementary school students whose environmental backgrounds were similar to those of the subjects. The study was undertaken to provide a new base of information for Title I program planning for the development of more effective instructional treatment for economically disadvantaged children with acute reading problems. Information already available in school records was consolidated with new data collected in the course of the investigation and analyzed by arithmetical techniques.

The research design was based on eight open-ended questions, three of which were addressed to the identification from available school records, of the more common characteristics of the subjects, and five of which were focused on the identification of factors of the reading disabilities related to mental ability, language functioning, auditory functioning, visual functioning, and motor functioning.

Findings about the characteristics of the subjects were in general agreement with those of others who have studied economically disadvantaged children with reading disabilities. In this study it was found that, while extreme reading difficulties occurred in all elementary grades and at all ages (seven through 12), the highest percentages were found in grade five, and among students who were nine and 10 years old. More black than white and more male than female students have failed to progress in reading, with the most common race/sex characteristics being black male. The most common family configuration was that of parents either divorced or separated, no father in the home, and the subject living with mother or grandmother who were either unemployed or on public welfare. In all categories of race and sex, the most common position among siblings was that of middle child. Relative stability was found in the number of schools attended. Lack of pre-school experience and high absenteeism were highly characteristic. Few of the reading disabled subjects had ever been referred to the school social worker, and few had ever had a psychological examination. Problems of visual and hearing acuity were not characteristic of the subjects, but few had any school record of physical examination for the determination of other health needs.

Findings related to the reading disabilities indicated that limited mental ability was an important factor, but that limited verbal ability was more prevalent than limited performance ability. Language functioning was impeded by central language disorders and environmentally affected language deficiencies. Problems of auditory discrimination were found to be highly prevalent among the subjects. Visual-motor difficulties were in somewhat lower incidence than language deficiences, but the problems detected were severe. Many subjects were affected by both language and visual-motor disorders. Motor functioning was found to be adequate where gross motor control was required, but limited where relatively complex mental integrations of visual and motor functions were required. It was concluded that the limited mental abilities of many of the subjects should be viewed as results of agenesis (developmental lag) incurred by deficient environmental stimulation, and therefore subject to treatment and to improvement in the levels of functioning. The conclusion was qualified with the recognition that for some of the subjects who had multiple learning disorders and/or deficiencies, either familial retardation, neurological damage, or both might be concomitant conditions to the agenesis. It was further concluded that even among subjects whose total functioning was within the dull normal to normal range, learning disorders similar to those of the retarded subjects were prevalent and sufficiently severe to warrant clinical instruction, high emphasis on language stimulation and on structured and sequential development of improved thought processes. Order No. 77-10,792, 278 pages.

READING BEHAVIORS OF REMEDIAL HIGH SCHOOL SOPHOMORES

NGANDU, Kathleen Moore, Ph.D.
University of Illinois at Urbana-Champaign, 1976

PURPOSE

The purpose of this study was to examine reading behaviors reported by sophomore high school remedial students in an attempt to identify what they did as they read. Rather then present a theoretical design of what these readers do or should do as they read, this study provided an account of the actual behaviors they used while reading certain materials for an assigned purpose. This account, along with the categorization scheme developed to identify these individual behaviors, may provide teachers with an alternative method in "diagnosing and remediating" students' deficiencies.

PROCEDURES

The sample selected as representative of this group of readers was eight students enrolled in the researcher's remedial reading classes. The case study approach involved these students reading various short stories and factual articles during a full semester for the following three purposes: details recall, statement of the main idea, or enjoyment. After silently reading a selection, students either completed a details-recall quiz, wrote the main idea, or ranked their enjoyment of the selection. Finally, the researcher asked students what they did while reading or how they read. Students' retrospective responses were taped on a cassette recorder for later content analysis.

MAJOR FINDINGS

1. Each student reported a definite behavior pattern when reading the various selection types. 2. Students generally showed greater similarity in behavior when reading the same material type for different purposes than when reading different material types for the same purpose. 3. In almost all cases students scored better on short story-details recall quizzes than on factual article-details recall quizzes. 4. Students did somewhat better when writing the main idea of short story selections as compared to those of factual articles. 5. Usually students preferred reading short stories rather than factual articles. 6. In almost all cases when a student reported

the hindering behaviors of not paying attention or/and experiencing an overall negative reaction about a selection type, he or she scored lower on the details recall quizzes, did not state acceptable main ideas, or ranked the selection type low on the enjoyment scale. 7. Students generally reported a greater number of different reading behaviors for the material type that they preferred, or that they comprehended better. In most cases this was short stories. 8. Specific selections did not seem to greatly dictate which behaviors students as a whole used. 9. With specific selections there were some similar behaviors reported by at least half of those who scored above average on the details recall quiz or stated an acceptable main idea. However, when grouping all the specific selections into the four selection types, there were few similar behaviors. 10. When short stories and factual articles were read for the purpose of details recall or statement of the main idea, in almost all cases students read the short stories faster. 11. When a short story and a factual article were both read for enjoyment, students generally read the factual article faster. 12. Short stories read for enjoyment were almost always read slower than short stories read for details recall or statement of the main idea.

CONCLUSIONS

1. This study supported the belief that reading is a complex activity, as the behaviors categorization scheme identified 45 different behaviors. 2. Students recognized what they did while reading and seemed to know the influence these behaviors had on their reading abilities. 3. Students exhibited individual patterns of behavior response. 4. Students generally reported using a greater number of different behaviors while reading the material type with which they had the most success (higher scores). 5. Narrative materials were generally read with better comprehension or with greater enjoyment than the expository materials were. 6. The interest level of materials seemed to have a great affect on how students read. 7. The reading behaviors categorization scheme was a satisfactory instrument to classify students' responses.

Order No. 77-9120, 188 pages.

THE INFLUENCE OF THE STRUCTURAL MODE OF WRITTEN MATERIAL ON THE COMPREHENSION SCORES OF DEAF AND HEARING CHILDREN AT THE SECOND AND FOURTH GRADE READING LEVEL

OSGOOD, Joan Studnicky, Ed.D.
University of Illinois at Urbana-Champaign, 1976

It was the intent of this experiment to investigate the influence of the structural mode of written material on the comprehension scores of deaf and hearing children at the second and fourth grade reading levels. By presenting the written material in three different structural modes, it could be determined if the reading process was facilitated by the structure of the material. The structural modes that were utilized were conventional spacing, phrasing, and anti-phrasing. In conventional spacing, the spaces between words followed the conventional form of written material. In phrasing, the material was broken down according to the constituent analysis of phrase structure rules with large breaks occurring at major phrase structure boundaries. In anti-phrasing, the material was broken down randomly with the breaks occurring anywhere in the sentence.

The phrase structures of a sentence are the constituents that make up that sentence. It has been established with hearing subjects that phrase structures influence the processing of verbal material but it is not clear if deaf subjects are influenced by this.

If meaningful verbal material tends to be coded into chunks or phrases by a reader then efficiency of reading might be improved if the reading material were preorganized into phrase structures. A comparison of deaf and hearing subjects as well as a comparison of second and fourth grade readers was made to see what effects the structural modes have. The following subjects were used: 1) 24 deaf children, 10 to 14 years of age, reading at the second grade level, 2) 24 deaf children, 14 to 18 years of age, reading at the fourth grade level, 3) 24 hearing children reading at the second grade level, and 4) 24 hearing children reading at the fourth grade level. All of the children's reading levels were measured by the comprehension subtest of the Stanford Reading Achievement Test. The deaf subjects also met the following criteria: 1) no other handicapping conditions, 2) deafness at birth or before 18 months, and 3) not less than a 90 db (ISO) hearing loss in the better ear. The hearing subjects were to have no handicapping conditions and were to be enrolled in the second or fourth grade for the first time.

Each child read three different stories at the second grade level. Each story was typed in a different structural mode. After reading each story the child answered written comprehension questions. The fourth grade readers also read three different stories written at that level. Each story also was typed in a different structural mode and comprehension questions followed.

The analysis for the study employed a 2 x 2 x 3 analysis of variance on the factors physical level of hearing, grade, and structural mode of presentation for the second grade material. Physical level of hearing, grade, and mode comprised the independent variables and the comprehension score obtained on each story was the dependent variable. A 2 x 3 analysis of variance on the factors physical level of hearing and structural mode of presentation was employed for the fourth grade material. Physical level of hearing and structural mode of presentation comprised the independent variables and the comprehension score obtained on each story was the dependent variable. The analysis for both levels of materials detected no significant differences which involved the structural mode of presentation. The only significant difference of interest was detected among stories.

Order No. 77-9130, 171 pages.

AN ANALYSIS OF THE SYNTACTIC DENSITY OF THE ORAL LANGUAGE OF FIRST GRADE CHILDREN: HOW IT AND NINE OTHER VARIABLES INTERRELATE AND PREDICT GLOBAL READING ACHIEVEMENT

PINZARI, Stephen James, Ed.D.
University of Maine, 1976

Adviser: Dodd E. Roberts

The purpose of this study was to investigate the predictability of syntactic density, mental ability, selected reading readiness factors, and learning ability for children of both sexes on first grade reading achievement measured in March, 1976. A secondary purpose was to compare the syntactic density of the oral language of first grade children with the syntactic density of selected first grade reading textbooks.

The subjects for the experiment were first grade students from the Bangor Public Schools of Bangor, Maine. From a population of 412 children, 135 boys and 135 girls were randomly selected according to sex from all first grade classrooms in the seven elementary schools in Bangor.

The data for the measures of mental ability, reading readiness, and learning ability were collected by the kindergarten and first grade teachers in the Bangor Public Schools. The data for the measures of syntactic density and reading achievement were collected by the researcher and three trained assistants. Measures of the syntactic density of first grade textbooks to be used for comparative purposes were collected from fourteen textbooks currently being used in first grade in the Bangor Public Schools.

Reading readiness was measured by the Metropolitan Readiness Test, Form A. All six subtests were administered, and a total readiness score was determined. Mental ability was measured by the Otis-Lennon Mental Ability Test, Elementary I. Learning ability was measured by the First Grade Screening Test. Syntactic density was measured by the Syntactic Density Score computer program. Reading achievement was measured by the Metropolitan Achievement Test in Reading, Primary I, Form G.

Six questions were proposed for investigation by this study. Stepwise multiple regression analysis and Pearson product-moment correlational analysis were utilized to analyze the data. An F-test was performed to determine adequate levels of significance of the regressions.

The first question asked the extent to which syntactic density, mental ability, selected reading readiness factors, and learning ability predict first grade children's reading achievement. Selected reading readiness factors proved to be the best predictors for boys, girls, and boys and girls together. Learning ability as measured by the FGST proved to

be the next best predictor and added significantly to the readiness predictor. Mental ability and syntactic density did not add significantly to the prediction.

The second question asked the extent to which syntactic density, total reading readiness, mental ability, and learning ability predict reading achievement of first grade children. Total reading readiness was the best predictor for boys, girls, and boys and girls together with learning ability adding significantly to the prediction.

The third question asked which of the language structures measured by the SDS program appeared most frequently in the oral language of first grade children. Prepositional phrases appeared most frequently followed by possessive nouns and pronouns and words per T-unit, respectively.

The fourth question asked whether the average syntactic density of first grade children matched the syntactic density of first grade reading textbooks. With one exception the selected first grade reading textbooks had lower syntactic density scores than first grade children.

The fifth question asked what the relationship was between syntactic density as found in the oral language of first grade children and selected reading readiness factors, mental ability, and learning ability. Syntactic density was not related meaningfully to any selected reading readiness factors, mental ability, or learning ability.

The sixth question asked what the relationship was between the subscores of the SDS program and the total reading achievement scores as measured by the MAT for first grade children. None of the subtests was related meaningfully to total reading achievement. Order No. 77-8330, 112 pages.

THE EFFECTS OF LEVELS OF INTEREST, ACHIEVEMENT AND SELF-CONCEPT ON THE READING COMPREHENSION SCORES OF FOURTH GRADE BOYS AND GIRLS

SAOI, Arlys L., Ed.D.
University of South Dakota, 1976

Director: Professor Virginia Monroe

This study was designed to assess the effect that levels of interest, sex, achievement and self-concept have on reading comprehension.

Subjects consisted of 220 children, 107 boys and 113 girls, the entire fourth grade population of two city schools and five small town schools in southeastern South Dakota.

Standardized instruments used in this study included the Piers-Harris Children's Self-concept Scale (Piers-Harris) to assess self-concept and the Iowa Test of Basic Skills (ITBS) or the SRA Assessment Survey (SRA), whichever was available, to assess reading achievement.

Interest was determined by a Reading Interest Inventory (Inventory) designed specifically for this study. Eleven categories of interests were selected, based on the research regarding children's interests. Children's literature was then reviewed to select three passages appropriate to each of the 11 categories; all passages had a readability level of 5.0 to 5.8 as measured by the Fry Readability Graph. This resulted in 33 items in the Inventory consisting of a title and the first 25–30 words of each passage. The children indicated their degree of interest in each passage by marking a five-point rating scale.

Reading comprehension was measured through the use of the cloze procedure (Taylor, 1953). The passages used were an extension (approximately the first 275 words) of the items used in the Inventory. After the first 25–30 words, every fifth word was deleted, with the exception of first words in sentences and proper nouns.

The examiner conducted two testing sessions in each classroom. During the first session, the Piers-Harris and the Inventory were administered.

Subjects were then grouped into three levels of achievement by ranking the grade equivalent scores of the ITBS or the SRA and dividing them in tertiles. Subjects were grouped into three levels of self-concept by ranking the scores of the Piers-Harris and dividing them into tertiles. Subjects were also grouped by sex. This resulted in a total of 18 groups. Then subjects were randomly assigned to either a high or a low interest group. This resulted in a four-way factorial design with 36 cells ranging in size from 4 to 10.

During the second testing session in each classroom, a cloze test was administered. Those children who were assigned to the high interest group were given a cloze passage from their highest area of interest as indicated on the Inventory; those assigned to the low interest group completed a cloze passage from the area of their lowest interest.

Results of this study were analyzed by the unweighted means procedure for unequal cell size. A total of 15 F tests were computed. The main effect due to achievement was found to be significant at the .005 level of significance. Main effects due to interest, self-concept and sex were nonsignificant. This reaffirms previous level of achievement as a powerful predictor of present level of performance. The interaction between self-concept and interest was found to be significant at the .05 level. Results indicated that low self-concept students had a higher mean reading comprehension score on the cloze test with high interest material than with low interest material, but that high self-concept students were not similarly affected by interest level of the material. All other interactions were nonsignificant.

Although this study indicated that low self-concept students are affected by interest level of the material while high self-concept students are not, more studies in the areas of self-concept and interest are needed before any definitive conclusions can be drawn. Order No. 77-3454, 147 pages.

A STUDY TO DETERMINE RELATIONSHIPS EXISTING BETWEEN SENSORY INTEGRATION SYNDROMES AND PSYCHOLINGUISTIC ABILITIES IN CHILDREN WITH LEARNING DISABILITIES

SEARS, Carol Joyce, Ph.D.
The American University, 1976

The problem was to determine if relationships existed between sensory integration syndromes in the categories of form and space perception, praxis, and postural and bilateral integration and the psycholinguistic abilities in a sample population of children (six through eight years old) diagnosed as learning disabled.

Null hypotheses were designed to determine if relationships existed between the syndromes and (a) the psycholinguistic processes of reception, association, and expression on the representational level of organization, and (b) specific abilities such as closure and sequential memory on the automatic level of organization. Both auditory-vocal and visual-motor channels of communication were involved.

The study was conducted as basic research and a correlative research design was used. A random sample of thirty children with learning disabilities was drawn from the population of a private school. Southern California Sensory Integration Tests and the Illinois Test of Psycholinguistic Abilities were administered to each child. Raw scores were subjected to the Pearson product-moment correlation procedure to determine the extent of the relationships.

Results indicated that the syndrome in form and space perception had significant relationships with (a) all auditory-vocal psycholinguistic abilities except auditory sequential memory, and (b) visual association on the representational level and visual closure and visual sequential memory on the automatic level. Significant correlations existed between the syndrome in praxis and all of the psycholinguistic abilities. Significant relationships existed between the syndrome in postural and bilateral integration and (a) auditory association, visual association, and verbal expression on the representational level, and (b) visual closure and visual sequential memory on the automatic level. Additional findings indicated significant relationships between the syndromes and (a) channels of communication, and (b) levels of organization.

It was concluded that significant relationships existed between the syndromes and the psycholinguistic abilities in both channels of communication on both levels of organization. The syndromes, generally, had greater influence on processes in the auditory-vocal channel on the representational level and, conversely, greater influence on specific abilities in the visual-motor channel on the automatic level. Data suggested a hierarchy of syndrome influence existed in relation to the psycholinguistic abilities; the syndrome in praxis was the most influential, the syndrome in form and space perception was moderately influential, and the syndrome in postural and bilateral integration demonstrated the least amount of influence.

Dissimilar patterns of significant relationships between the three syndromes and the psycholinguistic abilities in both communication channels were revealed. It was concluded that abilities in the auditory-vocal channel were most strongly influenced by substrata represented by the syndrome in praxis and abilities in the visual-motor channel were influenced by substrata from all three syndrome categories. Dissimilar patterns of significant relationships between the three syndromes and the psycholinguistic abilities on the two levels of organization were evident. It was concluded that the processes on the representational level were most strongly influenced by the substrata represented by the syndrome in praxis and the specific abilities on the automatic level were more generally influenced by substrata from all syndrome categories.

Identical patterns of significant relationships between the syndromes and the auditory-vocal channel and the syndromes and the representational level infer that both channel and organizational level were influenced in the same manner by the syndromes. Similar patterns of significant relationships were found between the syndromes and the visual-motor channel and the syndromes and the automatic level inferring that both channel and level were influenced similarly by the same syndromes.

Measurable behaviors may indicate deviations in the normal development of sensory substrata; deviations which could influence performance in psycholinguistic areas.

Order No. 77-9819, 193 pages.

NONVERBAL PREDICTORS OF READING ACHIEVEMENT IN HEARING IMPAIRED CHILDREN

SERWATKA, Thomas Stephen, Ph.D.
Kent State University, 1976

Director: Jacques Robinson

This investigation was designed to determine if nonverbal variables could be used as predictors of reading achievement levels in hearing impaired children. To accomplish this four specific questions were asked in this study. These were: (1) Are nonverbal variables significantly related to the reading achievement levels of hearing impaired children? (2) Is the relationship between each of these nonverbal variables and each of the criterion measures better described in terms of a linear or curvilinear relationship? (3) Can a set of nonverbal variables be used to generate a predictive index for each of the reading achievement measures used? (4) Can one or more than one canonical variate be found which effectively accounts for the variance in both the set of nonverbal variables and the set of criterion measures?

Nonverbal variables were selected for study because of both the need to identify variables which could be used in early diagnosis with hearing impaired children and the need to identify parameters which could be used for improving educational placement and planning procedures used with this population. The nonverbal variables selected for study were sex, chronological age, degree of deafness, speech discrimination, mother's educational level, family's socioeconomic status, parent's attitude toward deafness, age of initial amplification, age of initial training, nonverbal intelligence, mental age, achievement on each of 10 subtests from a nonverbal intelligence test, and flexibility, fluency, elaboration, and originality scores on a nonverbal test of creativity.

The criterion measures were reading achievement scores on a standardized achievement test, written receptive vocabulary scores on a standardized picture vocabulary test, and form-class replacement and verbatim response percentages on a "Cloze" Procedure test.

The subjects were 93 hearing impaired children (age 8 to 14) with hearing losses of 55 dB or greater.

Analyses of the data revealed the following results: (1) Significant correlations were found between each of the four criterion measures and measures of the following variables: mental age, chronological age, nonverbal intelligence, speech discrimination, flexibility, fluency, elaboration, and originality. Additional significant correlations were found between one or more of the criterion measures and each of the following variables: all 10 subtests from the nonverbal intelligence test, degree of deafness, socioeconomic status, and sex. (2) Significant increases in the amount of variance accounted for in specific criterion measures were made by the addition of the quadratic component for the following variables: achievement on four of the subtests from the nonverbal intelligence test, socioeconomic status, and chronological age. These findings suggest the existence of curvilinear relationships. (3) Those variables which added significantly to the multiple correlations were: (a) mental age, speech discrimination, flexibility and degree of deafness for the reading achievement scores; (b) achievement on two of the subtests from the nonverbal intelligence test, speech discrimination and fluency for written receptive vocabulary scores; (c) achievement on one of the subtests from the nonverbal intelligence test, speech discrimination, elaboration and mental age for form-class replacement percentages; and (d) achievement on one of the subtests from the nonverbal intelligence test, speech discrimination and elaboration for verbatim response percentages. (4) A single canonical variate was found which accounted for a significant amount of the variance in both the set of criterion measures and the set of predictor variables. All of the criterion and predictor variables added to the variate.

It was concluded that significant relationships do exist between specific nonverbal variables and measures of reading achievement in hearing impaired children. It was further concluded that a set of these nonverbal variables could be used to generate a predictive index of reading achievement levels in hearing impaired children.

Implications and further conclusions were discussed.

Order No. 77-7837, 210 pages.

COMPARISON OF PIAGETIAN TASK PERFORMANCE BY PRIMARY CHILDREN AND READING ACHIEVEMENT, CULTURAL BACKGROUND, SOCIO-ECONOMIC STATUS, AND RECEPTIVE LANGUAGE AGE

SPENCE, Mary Kaneaster, Ed.D.
University of Denver, 1976

The Problem

The primary purpose of the study was to determine if a significant relationship exists between primary children's ability to conserve and function at Piaget's "concrete operational stage of development" and their achievement in reading. A secondary purpose was to determine if the factors of age, sex, cultural difference, socio-economic status, and receptive language development had a significant relationship with primary children's ability to perform at the "concrete operational stage of development."

Procedures

Nine hundred primary children from Pueblo, Colorado Public Schools served as subjects. The two cultural groups studied were Anglo-American and Mexican-American. Nine trained observers administered the test instruments individually to each subject. Data was collected over a three-week period. These are listed by classification variable below:

Reading Achievement. The Clymer-Barrett Prereading Battery, Form A (kindergarten subjects only) and the Spache Diagnostic Reading Scales were employed to determine reading achievement. Subjects were classified as high, average, or low achievers.

Receptive Language Age. The Peabody Picture Vocabulary Test raw scores were converted to mental age scores. High and low classification was determined by a two-thirds standard deviation above and below the mean.

Socio-Economic Status. High, average, or low socioeconomic status was determined by scores derived from the Warner Index of Status Characteristics.

Concrete Operational Stage of Development. Eleven Piagetian Tasks were administered to subjects. There were six conservation tasks, two seriation, and three classification tasks. Subjects either passed or failed a task.

Statistical Treatment of the Data

Chi square analysis was applied to compare performance on each Piagetian task with the classification variables studied. Chi square was applied to determine the significance of the association between the total number of tasks passed and the grade level of the subjects. Finally, analysis of variance with unweighted means was applied to study the interactions between (1) grade level and reading achievement, (2) grade level and receptive language age level, and (3) grade level and socioeconomic level.

Major Findings and Conclusions

Significance was at the .05 level or better. The frequency of significance in the hundreds of comparisons supported the following conclusions: 1. There was an association between reading achievement and the ability to function at the "concrete operational stage of development." 2. There was no difference between Anglo-American and Mexican-American subjects when reading achievement and Piagetian task performance were compared. 3. There was no difference between boys and girls in either cultural group when reading achievement and Piagetian task performance were compared. 4. There was an association between receptive language age and ability to function at the "concrete operational stage of development." 5. Anglo-American subjects with average receptive language age did perform better than Mexican-American subjects at kindergarten and first grade levels. 6. There was an association between socio-economic level and ability to function at the "concrete operational stage of development." Subjects with high socio-economic status performed better than lower status subjects. 7. There was no difference in the performance of boys and girls when Piagetian task performance was analyzed by socio-economic categories. 8. An interaction was found between grade level and reading achievement levels. The number of tasks increased at each higher grade level. The rate of increase was greater for average and low readers. 9. An interaction was found between grade level and receptive language age levels. The number of correctly performed tasks increased at each higher grade level. The rate of increase was greater for average and low receptive language age subjects. 10. An interaction was found between grade level and socio-economic level. The number of tasks performed correctly increased with each higher socio-economic level, and increased at each higher grade level. The rate of increase was greater for average socio-economic level subjects between kindergarten and first grade. Order No. 77-8738, 388 pages.